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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,023	08/01/2001	James W. Willen	RA-5395	5430

7590

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EXAMINER

SHAH, NILESH R

ART UNIT

PAPER NUMBER

2127

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/920,023

Applicant(s)

WILLEN ET AL.

Examiner

Nilesh Shah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 8-12, 19-22 are presented for examination.

#### *Claim Rejections - 35 USC § 101*

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 8-12, 19-22, rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. “A ‘data structure’ comprising: a first block for... ; a second block for....” is non-statutory for at least the reason that it is not tangibly embodied in a manner so as to be executable. Further, a collection of fields, *per se*, is not an actual data structure, instead being non-functional descriptive material. Thus rejections under §101 as being an **abstract idea** and under §112, 2<sup>nd</sup> para, as **lacking an essential element** may also be appropriate.

#### *Claim Rejections - 35 USC § 112*

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:
  - (a) The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 8-12, 19-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) The following claim language is not clearly define:

a) As per claims 8,10,12, and 19, it is unclear what EEC data structure is and how it is different from the ECC block? Also an unabbreviated EEC needs to be included in independent claims.

b) Claims 8,10,12, and 19 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: the data structure and blocks of data.

### **Claim Rejections - 35 USC § 103**

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 8-12, 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (5,627,935) in view of Oeda et al (6,125,427) (hereinafter Oeda).
8. As per claim 8, Kim teaches an optical disc having a data format, comprising: a first ECC data structure including at least a user data and control information disposed in a first ECC block (col.6 lines 1-9); and  
  
a second ECC data structure including at least an ID information of a physical sector disposed in a second ECC block(col.6 lines 1-9); wherein the first and the second blocks are expressed on the disc in a same physical data cluster (col. 6 lines 19-39).
9. Kim does not specifically teach the use of independently coded blocks.  
  
Oeda teaches wherein the first and second ECC blocks are coded independently for error correction (col. 7 lines 55-67; col. 8 lines 1-9). It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Kim and Oeda because Kim's use of independently coded blocks within the error code would improve Oeda's system by providing more user information during error correction.
10. As per claim 9, Oeda teaches a optical disc wherein the logical data format comprises an error-correcting code having a long distance code (LDC) in one direction; and the user data is arranged in a same direction as the error-correcting code (fig 4, element 50; col. 5 lines 50-57; col.6 lines 14-25).

11. Claims 10-11 are rejected based on the same rejections as claims 8-9 above.
12. Claims 12 and 19 are rejected based on the same rejection as claim 8 above.
13. As per claim 20 Kim teaches an optical disc wherein the ID information of the second ECC block is (col.6 lines 1-9) operative to synchronize and address physical sectors of the same physical data cluster (col. 6 lines 19-39).
14. As per claim 21 Kim teaches an optical disc wherein the ID information (col.6 lines 1-9) is operative to synchronize and address physical sectors of the same physical data cluster (col. 6 lines 19-39).
15. Claim 22 is rejected based on the same rejection as claim 20 above.

### *Conclusion*

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Itoi (6,477,313 teaches the use of independent ECC blocks (col. 14 lines 20-25); Kulakowski et al (5,233,584) teaches the use of different ECC data blocks each coded independently (col. 4 line 59 –col.5 line 20).

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17. Applicant's arguments with respect to claims 8-12, 19-22 have been considered but are moot in view of the new ground(s) of rejection.
18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
19. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.
20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Niles Shah whose telephone number is (571)272-3771. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nilesh Shah  
Examiner  
Art Unit 2127

NS  
January 12, 2005

~~MENG-AL T. MA~~  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100